

# Fund 402

## Sewer Construction Improvements

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### **Focus**

Fund 402, Sewer Construction Improvements, provides for wastewater management construction projects through a transfer of funds from Fund 400, Sewer Revenue. All projects in Fund 402 are supported by sewer system revenues and are included in the Summary of Capital Projects.

In FY 2005, an amount of \$35,495,200 is included in Fund 402, Sewer Construction Improvements. Funding is provided through Fund 400, Sewer Revenue, to fund the County contributions for upgrade costs to the District of Columbia Water and Sewer Authority (DCWASA), the Alexandria Sanitation Authority (ASA), and the Arlington Treatment Plant, as well as the construction of a new pump station, the upgrade of sewer meters and extension projects, and the repair, replacement and renovation of aging sewer lines.

### **Changes to FY 2004 Adopted Budget Plan**

*The following funding adjustments reflect all approved changes in the FY 2004 Revised Budget Plan since passage of the FY 2004 Adopted Budget Plan. Included are all adjustments made as part of the FY 2003 Carryover Review and all other approved changes through December 31, 2003:*

- ◆ At the FY 2003 Carryover Review, the Board of Supervisors approved an increase of \$83,074,568 due to the carryover of unexpended project balances of \$81,139,206 and an increase of \$1,935,362 primarily for the installation of 14,995 linear feet of sewer line for 70 County properties as recommended by the Health Department.

A Fund Statement, a Summary of Capital Projects and Project Detail Tables for each project funded in FY 2005 are provided on the following pages. The Summary of Capital Projects may include some projects without a Total Project Estimate amount. These projects are considered "continuing" projects or projects for which funding is necessary on an ongoing basis (e.g., a contingency or planning project). The Project Detail Tables include project location, description, source of funding, and completion schedules.

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### FUND STATEMENT

Fund Type G40, Enterprise Funds

Fund 402, Sewer Construction Improvements

	FY 2003 Actual	FY 2004 Adopted Budget Plan	FY 2004 Revised Budget Plan	FY 2005 Advertised Budget Plan
<b>Beginning Balance</b>	<b>\$66,670,795</b>	<b>\$0</b>	<b>\$80,996,564</b>	<b>\$0</b>
Transfer In:				
Sewer Revenue (400)	\$54,171,000	\$31,534,000	\$33,469,362	\$35,495,200
Total Transfer In	\$54,171,000	\$31,534,000	\$33,469,362	\$35,495,200
<b>Total Available</b>	<b>\$120,841,795</b>	<b>\$31,534,000</b>	<b>\$114,465,926</b>	<b>\$35,495,200</b>
Total Expenditures <sup>1</sup>	\$39,845,231	\$31,534,000	\$114,465,926	\$35,495,200
<b>Total Disbursements <sup>1</sup></b>	<b>\$39,845,231</b>	<b>\$31,534,000</b>	<b>\$114,465,926</b>	<b>\$35,495,200</b>
<b>Ending Balance</b>	<b>\$80,996,564</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

<sup>1</sup> In order to account for revenues and expenditures in the proper fiscal year, an audit adjustment in the amount of \$142,642 has been reflected as an increase to FY 2003 expenditures. The project effected by this adjustment is Project X00905, Replacement and Transmission Programmed Rehabilitation. This impacts the amount carried forward resulting in a net decrease of \$142,642 to the FY 2004 Revised Budget Plan. The audit adjustment has been included in the FY 2003 Comprehensive Annual Financial Report (CAFR). Details of the FY 2003 audit adjustments will be included in the FY 2004 Third Quarter Package.

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### FY 2005 Summary of Capital Projects

#### Fund: 402 Sewer Construction Improvements

Project #	Description	Total Project Estimate	FY 2003 Actual Expenditures	FY 2004 Revised Budget	FY 2005 Advertised Budget Plan
G00901	DC Treatment Center - Blue Plains	\$77,588,605	\$8,602,692.81	\$17,185,912.15	\$10,800,000
G00903	Arlington Wastewater Treatment	16,387,392	794,356.00	1,674,514.00	3,930,000
I00351	Pump Station Renovations		2,895,324.72	6,575,577.47	1,500,000
I00355	Pump And Haul - Wylie/Gunston	2,637,936	160.89	0.00	0
I00904	ASA Wastewater Treatment Plant	215,318,400	13,238,249.03	21,615,581.00	8,800,800
L00117	Dogue Creek Rehab/Replacement		0.00	3,000,000.00	0
N00321	Lower Potomac Exp 54 MGD	105,269,000	3,088,582.70	15,791,707.21	0
T00124	Rocky Run Pump Station	4,335,926	2,080,000.00	807,203.78	0
X00445	Integrated Sewer Metering		329,540.02	305,147.86	50,000
X00823	Extension Projects FY 1993	3,779,003	64,767.47	1,300,296.73	0
X00826	Extension Project FY 1996	18,519,009	2,951,698.06	10,164,553.15	314,400
X00900	Replacement Transmission		354,222.21	782,804.79	0
X00905	Replacement & Transmission		4,135,648.75	18,014,103.97	10,000,000
X00906	Sewer Line Enlargement		405,728.72	6,208,819.01	0
X00908	Sewer Line Replacement - 5 Inch		0.00	136,920.04	0
X00910	Replacement and Renewal		767,528.86	10,176,754.95	0
X00930	Sewer Relocation - VADOT		134,377.28	187,436.06	0
X00940	Developer Projects County Costs		2,353.60	300,335.49	100,000
X00998	Sewer Contingency Project		0.00	185,686.27	0
X00999	Sewer Revolving Fund		0.00	52,572.00	0
<b>Total</b>		<b>\$443,835,272</b>	<b>\$39,845,231.12</b>	<b>\$114,465,925.93</b>	<b>\$35,495,200</b>

# Fund 402

## Sewer Construction Improvements

<b>G00901</b>	<b>DC Treatment Blue Plains</b>
Blue Plains Sewer Shed	Countywide
<b>Description and Justification:</b> This project provides for the payment to DCWASA for Fairfax County's share of the projected costs associated with the upgrade to the DC Blue Plains Wastewater Treatment Plant. The County pays for approximately 8.4 percent of the total costs for the design and construction of the upgrade for nitrification and sludge handling facilities. Fairfax County's estimated share of the project cost is \$77,588,605 over a six-year period. Funding of \$10,800,000 provides for the County's FY 2005 share based on DCWASA's projected expense summary and construction schedule.	

	Total Project Estimate	Prior Expenditures	FY 2003 Expenditures	FY 2004 Revised Budget Plan	FY 2005 Advertised Budget Plan	Future Years
Land Acquisition	\$0	\$0	\$0	\$0	\$0	\$0
Design and Engineering	130,765	21,962	108,803	0	0	0
Construction	50,976,451	0	8,493,890	15,630,945	10,800,000	16,051,616
Interjurisdictional Payment	26,481,389	24,926,422	0	1,554,967	0	0
<b>Total</b>	<b>\$77,588,605</b>	<b>\$24,948,384</b>	<b>\$8,602,693</b>	<b>\$17,185,912</b>	<b>\$10,800,000</b>	<b>\$16,051,616</b>

Source of Funding				
General Fund	General Obligation Bonds	Transfers from Other Funds	Sewer Revenue	Total Funding
\$0	\$0	\$0	\$10,800,000	\$10,800,000

Completion Schedule				
Land Acquisition Completion	Engineer/Architect Contract Award	Design Completion	Construction Contract Award	Construction Completion
First Quarter FY 2000	Fourth Quarter FY 2000	Fourth Quarter FY 2000	Various	Fourth Quarter FY 2009

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<b>G00903</b>	<b>Arlington Wastewater Treatment</b>
Arlington Sewer Shed	Countywide
<b>Description and Justification:</b> This project provides for the expansion and improvement of the Arlington County Wastewater Treatment Plant. The Fairfax County Board of Supervisors has approved a contract with Arlington County for the purchase of permanent sewage treatment capacity allocation of three million gallons per day in the expanded and improved Arlington Wastewater Treatment Plant. Fairfax County purchases this treatment capacity through contributions to the Arlington construction project. Funding in the amount of \$3,930,000 is required to meet the County's obligation in FY 2005.	

	Total Project Estimate	Prior Expenditures	FY 2003 Expenditures	FY 2004 Revised Budget Plan	FY 2005 Advertised Budget Plan	Future Years
Land Acquisition	\$0	\$0	\$0	\$0	\$0	\$0
Design and Engineering	0	0	0	0	0	0
Construction	7,496,719	1,097,849	794,356	1,674,514	3,930,000	0
Interjurisdictional Payment	8,890,673	8,890,673	0	0	0	0
<b>Total</b>	<b>\$16,387,392</b>	<b>\$9,988,522</b>	<b>\$794,356</b>	<b>\$1,674,514</b>	<b>\$3,930,000</b>	<b>\$0</b>

Source of Funding				
General Fund	General Obligation Bonds	Transfers from Other Funds	Sewer Revenue	Total Funding
\$0	\$0	\$0	\$3,930,000	\$3,930,000

Completion Schedule				
Land Acquisition Completion	Engineer/Architect Contract Award	Design Completion	Construction Contract Award	Construction Completion
NA	Second Quarter FY 2003	Fourth Quarter FY 2004	Third Quarter FY 2005	Fourth Quarter FY 2009

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<b>I00351</b>	<b>Pump Station Renovations</b>
Countywide	Countywide
<b>Description and Justification:</b> This project provides for the renovation of the existing pumping stations, as well as the construction of new pumping stations within the Wastewater Management Program. FY 2005 funding in the amount of \$1,500,000 provides for the construction of the new Powell Lane Pump Station which will eliminate a sewer line segment that is covered with 40 feet of fill debris from an old, illegal landfill. This pump station will have the capacity of 0.4 million gallons per day (MGD).	

	Total Project Estimate	Prior Expenditures	FY 2003 Expenditures	FY 2004 Revised Budget Plan	FY 2005 Advertised Budget Plan	Future Years
Land Acquisition		\$5,556	\$5,624	\$0	\$0	\$0
Design and Engineering		2,553,986	377,149	566,075	0	0
Construction		6,507,159	2,512,552	5,869,502	1,500,000	0
Other		208,784	0	140,001	0	0
Total	Continuing	\$9,275,486	\$2,895,325	\$6,575,577	<b>\$1,500,000</b>	\$0

Source of Funding				
General Fund	General Obligation Bonds	Transfers from Other Funds	Sewer Revenue	Total Funding
\$0	\$0	\$0	\$1,500,000	\$1,500,000

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<b>100904</b>	<b>ASA Wastewater Treatment Plant</b>
ASA Sewer Shed	Various
<b>Description and Justification:</b> This project funds the payment to the Alexandria Sanitation Authority for Fairfax County's share of construction costs associated with the improvements to the Alexandria Wastewater Treatment Plant. The design phase of the project has been completed, and construction is scheduled for completion in FY 2006. The County pays for approximately 60 percent of the total costs of the upgrade for ammonia removal. Funding of \$8,800,800 provides for the County's FY 2005 share based on the projected expense summary.	

	Total Project Estimate	Prior Expenditures	FY 2003 Expenditures	FY 2004 Revised Budget Plan	FY 2005 Advertised Budget Plan	Future Years
Land Acquisition	\$0	\$0	\$0	\$0	\$0	\$0
Design and Engineering	0	0	0	0	0	0
Construction	159,166,225	85,703,893	13,238,249	21,615,581	8,800,800	29,807,702
Other	56,152,175	56,152,175	0	0	0	0
<b>Total</b>	<b>\$215,318,400</b>	<b>\$112,697,320</b>	<b>\$13,238,249</b>	<b>\$21,615,581</b>	<b>\$8,800,800</b>	<b>\$29,807,702</b>

Source of Funding				
General Fund	General Obligation Bonds	Transfers from Other Funds	Sewer Revenue	Total Funding
\$0	\$0	\$0	\$8,800,800	\$8,800,800

Completion Schedule				
Land Acquisition Completion	Engineer/Architect Contract Award	Design Completion	Construction Contract Award	Construction Completion
N/A	First Quarter FY 2000	First Quarter FY 2000	First Quarter FY 2001	Fourth Quarter FY 2006

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<b>X00445</b>	<b>Integrated Sewer Metering</b>
Countywide	Countywide
<b>Description and Justification:</b> This project funds the Wastewater Management's metering program. Flows must be monitored to: 1) determine when the lines are nearing maximum capacity, 2) detect groundwater inflow/infiltration, 3) allow proper billing under interjurisdictional agreements for sewage treatment, and 4) comply with the Virginia Water Control Board regulations requiring metering at all trunk sewer junctions. FY 2005 funding of \$50,000 will provide for the upgrade of existing meters based on the agency's metering replacement schedules.	

	Total Project Estimate	Prior Expenditures	FY 2003 Expenditures	FY 2004 Revised Budget Plan	FY 2005 Advertised Budget Plan	Future Years
Land Acquisition		\$0	\$0	\$0	\$0	\$0
Design and Engineering		44,230	0	0	0	0
Construction		63,464	0	92,537	0	0
Other		1,572,067	329,540	212,611	50,000	0
Total	Continuing	\$1,679,761	\$329,540	\$305,148	<b>\$50,000</b>	\$0

Source of Funding				
General Fund	General Obligation Bonds	Transfers from Other Funds	Sewer Revenue	Total Funding
\$0	\$0	\$0	\$50,000	\$50,000



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<b>X00826</b>	<b>Extension Project 1996</b>
Countywide	Countywide
<b>Description and Justification:</b> This project provides for the completion of sewer extension and improvement projects in those areas of the County with chronic septic systems failures. FY 2005 funding of \$314,400 provides for the installation of approximately 1,000 linear feet of eight-inch sanitary sewer line to address septic system failure for seven dwellings on Glenbrook Road as recommended by the Health Department.	

	Total Project Estimate	Prior Expenditures	FY 2003 Expenditures	FY 2004 Revised Budget Plan	FY 2005 Advertised Budget Plan	Future Years
Land Acquisition	\$970,741	\$618,623	\$48,189	\$293,929	\$10,000	\$0
Design and Engineering	2,869,069	1,568,996	596,523	647,551	56,000	0
Construction	14,163,831	2,590,003	2,241,847	9,089,581	242,400	0
Other	515,368	310,737	65,139	133,492	6,000	0
<b>Total</b>	<b>\$18,519,009</b>	<b>\$5,088,358</b>	<b>\$2,951,698</b>	<b>\$10,164,553</b>	<b>\$314,400</b>	<b>\$0</b>

Source of Funding				
General Funding	General Obligation Bonds	Transfers from Other Funds	Sewer Revenue	Total Funding
\$0	\$0	\$0	\$314,400	\$314,400

## Fund 402

### Sewer Construction Improvements

<b>X00905</b>	<b>Replacement and Transmission</b>
Countywide	Countywide
<b>Description and Justification:</b> This project provides for the systematic rehabilitation of the County's more than 3,000 miles of sanitary sewer lines. Rehabilitation options include techniques/products such as slip-lining, instituform, and fold and form. In FY 2003 and FY 2004, 40 miles of sewer lines were completed. In FY 2005, funding of \$5,000,000 is included for the recurring repair, replacement and renovation of approximately 20 miles of sewer lines using predominantly "no dig" technologies. In addition, \$5,000,000 is required for sewer line realignment of 13 line segments throughout the County to correct hydraulic problems to prevent backups and/or overflows.	

	Total Project Estimate	Prior Expenditures	FY 2003 Expenditures	FY 2004 Revised Budget Plan	FY 2005 Advertised Budget Plan	Future Years
Land Acquisition		\$124,304	\$11,692	\$23,371	\$0	\$0
Design and Engineering		1,675,843	143,395	444,589	0	0
Construction		58,231,851	3,970,470	17,504,679	10,000,000	0
Other		187,323	10,092	41,465	0	0
Total	Continuing	\$60,219,320	\$4,135,649	\$18,014,104	<b>\$10,000,000</b>	\$0

Source of Funding				
General Fund	General Obligation Bonds	Transfers from Other Funds	Sewer Revenue	Total Funding
\$0	\$0	\$0	\$10,000,000	\$10,000,000

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<b>X00940</b>	<b>Developer Projects County Cost</b>
Countywide	Countywide
<b>Description and Justification:</b> This project provides for costs associated with the maintenance, review and preparation of sewer grid sheets for submission to the State Health Department and Water Control Board. FY 2005 funding of \$100,000 will provide for the preparation of as-built sewer plans for sewer segments not previously identified.	

	Total Project Estimate	Prior Expenditures	FY 2003 Expenditures	FY 2004 Revised Budget Plan	FY 2005 Advertised Budget Plan	Future Years
Land Acquisition		\$15,547	\$0	\$0	\$0	\$0
Design and Engineering		956,304	0	0	0	0
Construction		167,583	2,354	300,335	100,000	0
Other		0	0	0	0	0
Total	Continuing	\$1,139,434	\$2,354	\$300,335	<b>\$100,000</b>	\$0

Source of Funding				
General Fund	General Obligation Bonds	Transfers from Other Funds	Sewer Revenue	Total Funding
\$0	\$0	\$0	\$100,000	\$100,000